

The first record of the Turkish snail (*Helix lucorum* L., 1758) in the Slovak Republic

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A numerous population of the Turkish snail (*Helix lucorum* L.) (Mollusca: Gastropoda) has been found for the first time in the Slovak Republic (Bratislava City, April 2013).

Key words: non-indigenous species, unintentional introduction, urban fauna

Introduction

Helix lucorum is one of widely distributed species of the genus, with a large range extending from Iran in the east to Italy in the west (KORÁBEK et al. 2014). It is frequently used in the food industry (YILDIRIM et al. 2004, MIENIS & RITTNER 2010) and it is traded in vast quantities and recently has spread to many places beyond its natural distribution, including Spain, England, Czech Republic and Russia (QUIÑONERO SALGADO et al. 2010, PALMER 2010, PELTANOVÁ et al. 2012, BALASHOV et al. 2013). The recent findings of introduced populations demonstrate the potential of this snail to colonise new areas, but tracing back the sources of the newly established populations is impossible as this would require detailed knowledge of intraspecific geographical variation. *Helix lucorum* is known to be conchologically highly variable, with many described subspecific taxa (NEUBERT 2014). General conchological

differences between *Helix pomatia* and Central European populations of *Helix lucorum* are provided in Table 1.

Locality and habitat description

A numerous population of the Turkish snail (Fig. 1) was found in Bratislava City, Ružinov housing estate, along the Borodáčova Street, April 15, 2013 (Z. Maďarová legit). Snails were found in ruderal bushes bordering the place of a former school gym. An open market with fruits and vegetables located nearby might be a source of the introduced population. The total area of the site is 0.38 ha, *Helix lucorum* inhabits ca. 10% of the area. The vegetation at the site was dominated by *Ailanthus altissima*, *Sambucus nigra*, *Populus × euroamericana*, and *Acer platanoides*, admixed with some conifers (*Pinus nigra*, *Thuja* spp.) (Fig. 2). Estimated population density was 3 ind./m².

Table 1. Conchological differences between snails *Helix pomatia* and European populations of *Helix lucorum*.

	<i>Helix lucorum</i>	<i>Helix pomatia</i>
Shell diameter	Height 30–60 mm, width 30–60 mm.	Height 30–50 mm, width 30–50 mm.
Shell shape	Compressed, spherical.	Globose.
Shell colour	Broad red- or dark brown irregular bands go along the whorls ¹ , the background colour is whitish-yellow. Bands on almost all the whorls width.	Light brownish, often classified as chamois or creamy white. This colour is often interrupted by wide cinnamon-brown stripes. The stripes may be either distinct or ill-defined.
Shell surface	Finely striped.	Distinct lateral growth stripes. Wrinkled surface giving the appearance of faint spiral lines.
Aperture	Small, slightly flattened and laterally oblique, apertural rim folded back over the small umbilicus in the columellar area. Inside grey with violetish hue and with bands.	Large with a slightly expanded brown lip that is broadly reflected at the columella, partially covering the umbilicus. Apertural rim rounded and curved back to form an apertural lip.
Umbilicus	Small, covered in adults, not always completely closed.	Tiny, narrow, partly covered by the reflected columellar margin.
Apex	Smaller, blunt and, distinct.	Not blunt.

¹Bands may merge together, so that little can be seen of the whitish ground colour. In very lightly coloured shell specimens, the lateral discontinuities (“growth stripes”) can be more prominent, so the shell looks laterally striped or chequered (NORDSIECK 2014).

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References

- BALASHOV I. A., KRAMARENKO S. S., ZHUKOV A. V., SHKLYARUK A. N., BAIASHNIKOV A. A. & VASYLIUK A. V., 2013: Contributions to the knowledge of the terrestrial molluscs of southeastern Ukraine. – *Malacologica Bohemoslovaca*, 12: 62–69.
- KORÁBEK O., JUŘÍČKOVÁ L. & PETRUSEK A., 2014: Resurrecting *Helix straminea*, a forgotten escargot with trans-Adriatic distribution: first insights into the genetic variation within the genus *Helix* (Gastropoda: Pulmonata). – *Zoological Journal of the Linnean Society*, 171: 72–91.
- MIENIS H. K. & RITTNER O., 2010: On the presence of *Helix lucorum* Linnaeus, 1758 (Mollusca, Gastropoda, Helicidae) in Le Vesinet, a western suburb of Paris. – *MalaCo*, 6: 266–267.
- NEUBERT E., 2014: Revision of *Helix* Linnaeus, 1758 in its eastern Mediterranean distribution area, and reassignment of *Helix godetiana* Kobelt, 1878 to *Maltzanella* Hesse, 1917 (Gastropoda, Pulmonata, Helicidae). – *Contributions to Natural History*, 26: 1–200.
- NORDSIECK R., 2014: The Turkish Snail (*Helix lucorum* L.). – In: *The Living World of Molluscs*. <www.molluscs.at> Downloaded on 6 October 2014.
- PALMER P., 2010: *Helix lucorum* in Wimbledon, S.W. London. – *Mollusc World*, 23: 12.
- PELTANOVÁ A., PETRUSEK A., KMENT P. & JUŘÍČKOVÁ L., 2012: A fast snail's pace: colonization of Central Europe by Mediterranean gastropods. – *Biological Invasions*, 14: 759–764.
- QUIÑONERO SALGADO S., LÓPEZ ALABAU A. & GARCÍA MESEGUER A. J., 2010: Nuevas localidades de *Helix lucorum* (Linnaeus, 1758) para la península Ibérica. – *Spira*, 3: 45–47.
- YILDIRIM M. Z., KEBAPÇI Ü. & GÜMÜŞ B. A., 2004: Edible snails (terrestrial) of Turkey. – *Turkish Journal of Zoology*, 28: 329–335.



Fig. 1. The original shell of *Helix lucorum* from Bratislava City.



Fig. 2. Partial view of the site with *Helix lucorum*.